Department of Commerce • National Oceanic & Atmospheric Administration • National Weather Service

NATIONAL WEATHER SERVICE INSTRUCTION 10-311
July 8, 2003

Operations and Services
MARINE AND COASTAL WEATHER SERVICE PROGRAM, NWSPD 10-3

OFFSHORE, NAVTEX, AND HIGH SEAS MARINE FORECAST SERVICES

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OPR: OS21 (B. LaMarre) **Certified by:** OS21 (T. Pierce)
Type of Issuance: Routine.

SUMMARY OF REVISIONS: This directive supersedes NWSI 10-311, dated May 21, 2002. This directive follows a new format; provides expanded guidance on the issuance of gale/storm warnings; includes detailed information for each NAVTEX broadcast station, and an updated list of graphics products in the appendix.

Signed June 20, 2003

Gregory A. Mandt Date
Director, Office of Climate,
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OFFSHORE, NAVTEX, AND HIGH SEAS MARINE FORECAST SERVICES

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1. Introduction. This procedural instruction provides product specifications for the main alphanumeric coastal, offshore, and high seas weather products issued by National Weather Service (NWS) Weather Forecast Offices (WFOs), and the National Centers for Environmental Prediction (NCEP). Products covered in this instruction may eventually be prepared by automated formatters extracting information from a gridded database. However, in the interim the following weather products will be created using a mixture of traditional preparation methods and product formatters.

2. Offshore Waters Forecast (product category OFF).

2.1 Mission Connection. The Offshore Waters Forecast (OFF) provides forecast and warning information to mariners who travel on the oceanic waters adjacent to the U.S. and its territorial coastal waters. The OFF, produced in both graphic and alphanumeric format, serve customers who operate from the coastal waters to several hundred nautical miles from shore.

2.2 Issuance Guidelines.

2.2.1 Creation Software. WFOs and National Center offices should produce the OFF using software formatters requiring little or no post editing. WFOs and National Centers may use text editors to create the OFF where automated software formatters are not yet available.

2.2.2 Issuance Criteria. The OFF will be issued twice a day with updates as necessary. NCEP, Alaska Region, or Pacific Region, as dictated by customer requirements, may require scheduled updates. Forecasts should make the OFF available to customers by the scheduled issuance time, but no earlier than 1 hour before this issuance time. In the communications header, list the issuance time in Universal Time Coordinated (UTC), but in the mass media header, list the valid time in local time.

2.2.3 Issuance Time. Offshore Waters Forecasts are routinely-scheduled products. WFOs should issue Offshore Waters Forecasts based on the following:

Responsible Office	Issuance Times (UTC)	
	Scheduled Issuance	Scheduled Issuance
MPC (Atlantic)	0730 (summer) 0800 (winter)	2000
TPC	0915	2115
MPC (Pacific)	1030	2230
Alaska	1100	2300
Pacific	1000	2200

In all forecasts, include forecast periods as shown below. Use the day of the week to describe forecast periods for all but the current day. For example, in a forecast issued Sunday evening, include: TONIGHT, MON, MON NIGHT, etc.

Early morning forecast will cover:

Today/This Afternoon	(Issuance time to 6PM)
Tonight	(6PM to 6AM)
(Next Day)	(6AM to 6PM)
(Next Day) Night	(6PM to 6AM)
(Day 3 [Evening Optional])	(6AM to 6PM)
(Day 4)	(6AM to 6PM)
(Day 5)	(6AM to 6PM)

Late afternoon forecast will cover:

Tonight	(Issuance time to 6AM)
(Next Day)	(6AM to 6PM)
(Next Day) Night	(6PM to 6AM)
(Day 2)	(6AM to 6PM)
(Day 2 Night)	(6PM to 6AM)
(Day 3 [Evening Optional])	(6AM to 6PM)
(Day 4)	(6AM to 6PM)
(Day 5)	(6AM to 6PM)

2.2.4 Valid Time. Offshore Waters Forecasts are valid from the time of issuance until the expiration time.

2.2.5 Product Expiration Time. The OFF product expiration time is not more than 12 hours from the initial issuance.

2.3 Technical Description. Offshore Waters Forecasts will follow the format and content described in this section.

2.3.1 Mass News Disseminator Broadcast Line. None.

2.3.2 Mass News Disseminator Header. The Offshore Waters Forecast MND Header is "OFFSHORE WATERS FORECAST".

2.3.3 Content. Follow the format for the OFF as shown in section 2.4; examples of the OFF can be found in Appendix A. Forecasters may subdivide each marine zone (e.g., NORTHERN HALF, SOUTHERN HALF; WATERS SOUTH OF 40N; etc.) to describe significant differences. If geographical reference points are used in the subdivision, forecasters should ensure they are well known.

Similarly, forecasters may combine zones for which they are responsible if conditions are expected to be homogeneous. However, do not combine a zone with only a portion of another.

The forecaster may combine periods if, in the forecaster's opinion, the weather elements in each are consistent. Also, the forecaster may subdivide the first period of any OFF forecast to account for rapid changes.

The forecaster may combine forecast periods (beyond the first period) if, in the forecaster's opinion, the weather elements in each are consistent. Also, the forecaster may subdivide the first period of the forecast to account for rapid weather changes. OFFs will use the Marine UGC code.

2.3.4 Synopsis. The synopsis for the OFF should be a concise, understandable description of the significant surface weather features that may cause significant winds and seas over the forecast area during the forecast period. Forecasters should concentrate on the first 48 hours. At a minimum the synopsis should identify major weather systems and the strength, trend, and movement of each. After 48 hours, less detail is needed. Forecasters should include a general description of systems impacting the area only if they are expected to generate gale force or stronger winds. Such systems do not necessarily have to be in the forecast area.

For tropical cyclones expected to impact the forecast area, forecasters should include forecast positions out to 120 hours, as noted in applicable advisories.

2.3.5 Headlines. Use headlines to emphasize weather events likely to have a significant impact on mariners or marine operations. In each headline, indicate the severity of the event in the priority order given below.

The most significant headline generally should stand alone. However, forecasters may include more than one headline to indicate multiple hazards or worsening conditions. Do not include a headline that downgrades a current condition in later periods (e.g., a storm warning in effect improving to a gale warning). A warning is issued when wind conditions are expected to exceed 34 knots within a 24 hour period. Refer to NWSI 10-301 for appropriate definitions of gale, storm, and hurricane force wind warnings.

In the headline, forecasters should include a general statement of the weather posing the threat, the time period, and, if necessary, the specific area impacted. Forecasters should not use specific times (e.g., GALE WARNING IN EFFECT AFTER 9AM).

Do not include headlines for severe local storm watches and warnings, tropical cyclone watches, and small craft advisories in the OFF. However, forecasters may use other headlines, such as WARNING EXPECTED WED or WARNING POSSIBLE MONDAY NIGHT, especially for stronger storms in later forecast periods.

a. Non-Tropical Storm Related Headlines. In the OFF, forecasters should use the following headlines, in the priority order given, if appropriate criteria are or are expected to be met.

    1. Hurricane Force Wind Warning

2. Storm Warning
3. Gale Warning
4. Heavy Freezing Spray Warning

Based on event significance, forecasters may include advisories for events expected to impact the forecast area such as freezing spray, restrictions lowering visibilities below 1 NM, or volcanic ash fallout.

b. Tropical Cyclone Related Headlines. Keep headlines of tropical cyclones expected to impact the forecast area consistent with those included in the appropriate tropical cyclone advisories.

c. Gale Warnings/Storm Warnings. NWS offices responsible for the OFF will issue warnings when criteria are met for the first twelve (12) hour period, and may issue (based on local policy) warnings for the second and/or third period when forecaster confidence is high. In addition, when forecaster confidence is high, marine offices may include a headline in the Offshore Waters Forecast such as "GALE (or STORM) WARNING CONDITIONS EXPECTED MONDAY" for the remaining periods of the forecast.

2.3.6 1-2 Day Forecast Periods. In the OFFs, include specific wind and sea states for all four forecast periods. Forecasters should also include major precipitation events, ice accretion, and low visibility conditions as conditions warrant.

2.3.7 3-5 Day Forecast Periods. Include the most significant wind and sea height information beginning with period five. However, forecasters may use trend forecasts in lieu of specific wind and sea heights. Forecasters may also note other major events such as ice accretion and low visibility conditions.

When a tropical cyclone threatens to impact an OFF zone, forecasters should include an indication of the tropical cyclone, based on TPC, CPHC, WFO Guam, and/or HPC guidance, for the specific day(s) impacted. Because large positional and intensity errors are possible in these cases, do not use specific wind and sea values.

Example: .FRIDAY...EAST WIND INCREASING TO GALES AND SEAS BUILDING.
.SATURDAY...TROPICAL STORM CONDITIONS POSSIBLE.
.SUNDAY...HURRICANE CONDITIONS POSSIBLE.

2.3.8 OFF - Forecast Parameters

a. Winds. Winds represent predominant conditions about 10 meters above the surface of the water. Forecasters should give directions to eight points of the compass and speeds rounded to the nearest 5 KT.

Only sustained winds are normally included in the OFF. However, when there are significant differences between sustained winds and peak gusts, forecasters should mention the gusts (e.g., EAST WINDS TO 70 KTS WITH GUSTS TO 120 KTS).

Forecast changes in wind direction should be for changes of 90 degrees or more, and forecast changes in wind speed should be for changes of 10 knots or more. Speed transition terms such as "INCREASING" and "DECREASING" and direction transition terms such as "BECOMING" and "SHIFTING" should be used to add clarity to the forecast.

When there are significant differences expected between sustained winds and gusts, the OFF should contain either a specific wind gust speed or a more generic phrase to describe the gusty condition of the winds, e.g., "WITH HIGHER GUSTS." Gusts should not be forecast unless they are expected to be at least 15 knots greater than the sustained wind.

Note significant changes (i.e., at a minimum, those changes denoting a change in warning category) in the winds during the forecast period.

b. Seas. Give sea state as a combined sea height or break it down into appropriate components (e.g., WIND WAVES 2 TO 4 FT, NORTHEAST SWELL TO 10 FT, SEAS 12 FT). Whenever a SWELL is specified, include the direction from which the swell is propagating, to 8 points of the compass.

Do not use descriptive terms, such as MODERATE or ROUGH.

Sea state forecasts should be included for marine areas or portions of marine areas south or west of the ice edge. For other marine areas where a concentration of 7/10 or more of sea ice is expected, forecasts of sea state are usually omitted; however, if the area has at least 10% contiguous open water, sea state forecasts may be given. In these cases, use the phrase "SEAS IN ICE FREE WATERS".

c. Significant Weather/Visibility. When it is expected, forecasters should include significant weather posing a hazard to navigation (i.e., widespread fog or other restriction lowering visibilities to 5NM or less, or thunderstorms). Forecasters may use precipitation probability terms "CHANCE", "OCCASIONAL", etc., as defined in WSOM Chapter C-11/NWSI 10-503, and the may include specific visibility distances. However, do not use a qualitative description of visibility (e.g., VISIBILITY FAIR), and do not include sky cover.

d. Icing. The forecaster should include a headline whenever ice accretion on exposed surfaces is likely (e.g., HEAVY FREEZING SPRAY WARNING). When freezing spray is forecast to occur, and not meet warning thresholds, forecasters should include mention of freezing spray in the body of the forecast.

Note: In support of the National Digital Forecast Database (NDFD), the following weather elements will be added to the list of OFF Forecast Parameters in the future: ice crystals, ice fog, freezing fog, volcanic ash, and ice coverage weather elements.

2.4 Format. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

OFFSHORE WATERS FORECAST
NATIONAL WEATHER SERVICE (CITY)(STATE)
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

OFFSHORE WATERS FORECAST FOR (FORECAST AREA)

(SYNOPSIS UGC CODE)-(EXPIRATION DATE TIME)-
SYNOPSIS FOR (TOTAL FORECAST AREA)

.SYNOPSIS...TEXT.

(AREAL UGC[S])-(EXPIRATION TIME)-
(FORECAST AREAL DESCRIPTOR[S])
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

...HEADLINE (if needed)...

.PERIOD 1...
.PERIOD 2...
.PERIOD 3...
.PERIOD 4...
.PERIOD 5 (Optional)...
.(DAY 3)...
.(DAY 4)...
.(DAY 5)...

$$
WINDS LEGEND...BEAUFORT WIND FORCE SCALE (Optional)
FORECASTER NAME (Optional)

Figure 1. Offshore Waters Forecast (OFF) Format

2.4.1 OFF - Unscheduled Forecasts. As needed, append either "...UPDATED" or "...CORRECTED" to the product header whenever, respectively, an unscheduled OFF is issued or when an error in the OFF is corrected. Add a short description of the updated or corrected items just below the areal header to highlight the change.

2.5 Graphic Products. Appendix J lists existing offshore graphic products. Forecasters will ensure the graphics are consistent with compatible text products. Additionally, forecasters should ensure graphic products reaching the edges of an office's warning area are consistent with compatible products in neighboring warning areas.

2.6 Updates, Amendments and Corrections. OFFs will be updated when the on-duty forecast team believes the current forecast is not representative, or when format or content errors are detected. WFOs and National Centers will correct OFFs for format and grammatical errors.

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

OFFSHORE WATERS FORECAST**...UPDATED (or ...CORRECTED)**
NATIONAL WEATHER SERVICE (CITY)(STATE)
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

OFFSHORE WATERS FORECAST FOR (FORECAST AREA)

(SYNOPSIS UGC CODE)-(EXPIRATION DATE TIME)-
SYNOPSIS FOR (TOTAL FORECAST AREA)

.SYNOPSIS...TEXT.

(AREAL UGC[S])-(EXPIRATION TIME)-
(FORECAST AREAL DESCRIPTOR[S])
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

REASON FOR UPDATE (or CORRECTION)

Figure 2. Unscheduled Offshore Waters Forecast (CWF) Format

3. Marine Weather Discussion (product category MIM).

3.1 Mission Connection. The Marine Weather Discussion (MIM) is a semi-technical product, analogous to the Area Forecast Discussion (AFD), primarily used as a means to explain the scientific rationale behind a forecast and summarize warnings in effect. The Marine Weather

Discussion is used to convey forecast and warning information to federal agencies, weather sensitive officials, and the media.

3.2 Issuance Guidelines.

3.2.1 Creation Software. The MIM should be composed using text editors and/or available formatters.

3.2.2 Issuance Criteria. The MIM should be issued two to four times daily by marine service offices issuing the Offshore Waters Forecast.

3.2.3 Issuance Time. The MIM should be issued shortly before the scheduled Offshore Waters Forecast. Also, Forecasters should issue a brief MIM to provide information of an impending OFF update. WFO Anchorage (ANC) should include a discussion of their OFF in their Area Forecast Discussion (AFD).

3.2.4 Valid Time. MIMs are valid from time of release until the next complete update.

3.2.5 Product Expiration Time. MIMs do not contain a product expiration time.

3.3 Technical Description. The Marine Weather Discussion will follow the format and content described in this section.

3.3.1 Universal Geographic Code (UGC) Type. There is no UGC coding associated with the MIM product.

3.3.2 MND Header. The Marine Weather Discussion MND Header is "MARINE WEATHER DISCUSSION".

3.3.3 Content. The Marine Weather Discussion should describe synoptic and mesoscale features expected to affect areas in and adjacent to offshore waters in both the Atlantic and Pacific Oceans. This narrative describes weather, wind speeds, and seas focusing mainly on conditions through the next 48 hours. The MIM should emphasize timing and issuance of warnings; include future trends of wind and sea conditions, effects of currents such as the Gulf Stream in the Atlantic Ocean, and how the latest computer model guidance is handling features of significance to the mariner.

3.4 Format. The MIM should be consistent with instructions contained in WSOM Chapter C-45/NWSI 10-503. Examples of the MIM can be found in Appendix A. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

3.5 Updates, Amendments and Corrections. MIMs will be updated when the on-duty forecast team believes the current forecast is not representative, or when format or content errors are detected. WFOs and National Centers will correct MIMs for format and grammatical errors.

4. NAVTEX Forecasts.

4.1 Mission Connection. NAVTEX forecasts support the international SOLAS convention. The NAVTEX forecast is a text forecast issued to accommodate broadcast restrictions of the U.S. Coast Guard NAVTEX transmitters. NAVTEX forecasts provide forecast and warning information to mariners who travel on the oceanic waters adjacent to the U.S. and its territorial coastal waters, and serves customers who operate from the coastal waters to several hundred nautical miles from shore.

4.2 Issuance Guidelines.

4.2.1 Creation Software. WFOs and National Center offices should use text editors and/or available formatters to compose the NAVTEX forecast.

4.2.2 Issuance Criteria. The NAVTEX forecast represents a combination of the Coastal Waters Forecast (CWF) and the Offshore Waters Forecast (OFF). However, those offices issuing the CWF and the OFF will retain full responsibility for those products.

4.2.3 Issuance Time. Issuance times for the NAVTEX forecast will be the same as for the Offshore Waters Forecast (OFF). The NAVTEX forecast will be issued immediately following the OFF.

4.2.4 Valid Time. NAVTEX Forecasts are valid from the time of issuance until the expiration time.

4.2.5 Product Expiration Time. The NAVTEX forecast expiration time is not more than 12 hours from the initial issuance.

4.3 Technical Description. NAVTEX forecasts will follow the format and content described in this section.

4.3.1 Mass News Disseminator Broadcast Line. None.

4.3.2 Mass News Disseminator Header. The NAVTEX Forecast MND Header(s) can be found in the following table. The following NWS marine products are broadcast via U.S. Coast Guard (USCG) NAVTEX stations. Refer to NWSI 10-302; Section 4, NAVTEX Forecast Areas of Responsibility, for detailed description of areas.

USCG Boston, MA:
NAVTEX Forecast; Eastport, ME to Sandy Hook, NJ; Identifier F.

MND: NORTHEASTERN US NAVTEX MARINE FORECAST

USCG Chesapeake (Portsmouth), VA:
NAVTEX Forecast; Sandy Hook, NJ to Murrells Inlet, SC; Identifier N.
MND: MID ATLANTIC STATES NAVTEX MARINE FORECAST

USCG Savannah, GA:
NAVTEX Forecast; Murrels Inlet, SC to Flagler Beach, FL; Identifier E.
MND: SOUTHEASTERN US NAVTEX MARINE FORECAST

USCG Miami, FL:
NAVTEX Forecast; SW N Atlantic S of 31N and W of 65W; Identifier A.
MND: NAVTEX MARINE FORECAST

USCG Puerto Rico
NAVTEX Forecast; Carribean Sea and SW N Atlantic; Identifier R
MND: NAVTEX MARINE FORECAST

USCG New Orleans, LA
NAVTEX Forecast; Gulf of Mexico; Identifier G
MND: NAVTEX MARINE FORECAST

USCG Astoria, OR
NAVTEX Forecast; U.S. - Canadian Border to Point Saint George, CA; Identifier W
MND: WASHINGTON AND OREGON NAVTEX MARINE FORECAST

USCG Pt. Reyes (San Francisco), CA
NAVTEX Forecast; Point Saint George, CA to Point Piedras, CA; Identifier C
MND: NORTHERN CALIFORNIA NAVTEX MARINE FORECAST

USCG Cambria, CA
NAVTEX Forecast; Point Piedras, CA to Mexican Border; Identifier Q
MND: SOUTHERN CALIFORNAI NAVTEX MARINE FORECAST

USCG Kodiak, AK
The following are NAVTEX Forecasts under Identifier J:

Offshore Forecast, Gulf AK and Bering Sea;
MND: OFFSHORE FORECAST

Coastal Forecast, AK marine areas 5A, 5B, 6A, 6B
MND: MARINE FORECAST FOR BRISTOL BAY AND THE ALASKA PENINSULA WATERS

Coastal Forecast, AK marine areas 8, 12A, 12A1, 12B, 13, 15
MND: MARINE FORECAST FOR SOUTHWEST ALASKA COASTAL WATERS

Coastal Forecast, AK marine areas 14, 9A, 9B, 10A, 11A, 11B
MND: MARINE FORECAST FOR THE WESTERN AND ARCTIC ALASKAN COASTAL WATERS

USCG Honolulu, HI
NAVTEX Forecast; Identifier O;
MND: COASTAL WATERS FORECAST FOR HAWAII

USCG Marianus (Guam)
The following are NAVTEX Forecasts under Identifier V:

Pacific High Seas Forecast
MND: HIGH SEAS FORECAST FOR METAREA XII

Coastal Forecast, Marianus (Guam)
MND: COASTAL MARINE FORECAST

4.3.3 Content. NAVTEX forecasts will follow the same content as the CWF and the OFF. Exceptions: Do not include Universal Generic Codes (UGCs), and do not include more than 4 forecast periods in NAVTEX forecasts, without approval from National Weather Service Headquarters (NWSH).

In each NAVTEX forecast, match the broadcast areas of the appropriate USCG transmitters as listed in Section 5.3.2 above, and also in NWSI 10-302. Forecasters may combine forecast periods if weather features are similar.

No NAVTEX forecast will be longer than 89 lines including blank lines. Include the phrase: "...PLEASE REFER TO COASTAL WATERS FORECASTS (CWF) AVAILABLE THROUGH NOAA WEATHER RADIO AND OTHER MEANS FOR DETAILED COASTLINE FORECASTS...' before the synopsis.

4.3.4 Synopsis. The synopsis should be consistent with synopses contained in the CWF and the OFF.

4.3.5 Headlines. List applicable headlines from both CWFs and OFFs, including those involving the extended portion of the forecast, in the NAVTEX forecast. Exception: Do not include headlines for small craft advisories or for severe local storm watches and warnings. Append the annotation 'WITHIN XX NM OF SHORE' for items restricted to coastal waters areas, where XX is the appropriate distance of the restricted item.

4.3.6 1-2 Day Forecast Periods. Include weather conditions representing values found

throughout the entire forecast area.

4.3.7 3-5 Day Forecast Periods. Forecast elements will be included through approval from National Weather Service Headquarters (NWSH).

4.3.8 NAVTEX - Forecast Parameters. In the NAVTEX forecast, include the same forecast parameters as forecast in the OFF and the CWF.

4.4 Format. This product is available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language. To ensure proper dissemination of the NAVTEX forecast, follow the following format:

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

NAVTEX MARINE FORECAST
NATIONAL WEATHER SERVICE (CITY)(STATE)
(SCHEDULED ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

...PLEASE REFER TO COASTAL WATERS FORECASTS (CWF) AVAILABLE THROUGH NOAA WEATHER RADIO AND OTHER MEANS FOR DETAILED COASTLINE FORECASTS...

.SYNOPSIS...(TEXT)

(FORECAST AREA[S])

...HEADLINE(S) (if necessary)...

.Period 1...
.Period 2...
.Period 3...
.Period 4...
$$
FORECASTER NAME (Optional)

Figure 3. NAVTEX Forecast Format

4.4.1 NAVTEX - Unscheduled Forecasts. Update NAVTEX forecasts only in the rarest of circumstances when a major modification is required. Refer to Section 5.5.

4.5 Updates, Amendments and Corrections. As NAVTEX is a single frequency system, each NAVTEX station and content provider must take measures to prevent mutual interference with other stations. To avoid such mutual interference, each NAVTEX station is assigned specific time slots. When a NAVTEX broadcast may exceed the assigned broadcast period, or broadcast a warning at an unscheduled time, the NAVTEX station must make scheduling arrangements with nearby stations to prevent potential mutual interference. Such rescheduling of broadcasts may result in an undesirable cascade effect, inhibiting the fundamental purpose of the NAVTEX system. Therefore, unscheduled broadcasts, and lengthy forecasts should be avoided.

5. High Seas Forecast (product category HSF).

5.1 Mission Connection. The High Seas Forecast (HSF) provides warning and forecast information to mariners who travel on the oceanic waters. The HSF is produced in both graphic and alphanumeric format.

5.2 Issuance Guidelines.

5.2.1 Creation Software. The National Centers for Environmental Predictions' Ocean Prediction Center (OPC), the Tropical Prediction Centers' (TPC) Tropical Analysis and Forecast Branch (TAFB), and WFO Honolulu (HFO) should produce the HSF using text editors where automated software formatters are not yet available.

5.2.2 Issuance Criteria. The HSF will be issued every six hours, including any marine warnings for gale, storm, and tropical cyclone conditions. Refer to NWSI 10-302, Section 5, High Seas Forecast Areas of Responsibility, for a description of the areas covered in these forecasts.

5.2.3 Issuance Time. High Seas Forecasts are routinely-scheduled products. OPC, TAFB and WFO HFO should issue HSFs based on the following:

Issuing Office	**Issuance Times(UTC)**				**Effective Until(UTC)**			
	Current Day				Day 2			
OPC/Atl.	0430	1030	1630	2230	0000	0600	1200	1800
TPC/Atl.	0430	1030	1630	2230	0000	0600	1200	1800
TPC/Pac.(N. of Equator)	0430	1030	1630	2230	0000	0600	1200	1800
OPC/Pac.	0545	1145	1745	2345	0000	0600	1200	1800
HFO/Pac.(N. of Equator)	0500	1100	1700	2300	0000	0600	1200	1800
TPC/Pac.(S. of Equator)	0515	1115	1715	2315	0000	0600	1200	1800
HFO/Pac.(S. of Equator)	0530	1130	1730	2330	0000	0600	1200	1800

5.2.4 Valid Time. High Seas Forecasts are valid from the time of issuance until the expiration time.

5.2.5 Product Expiration Time. HSFs are superceded by the next forecast issuance in 6 hours.

5.3 Technical Description. High Seas Forecasts will follow the format and content described in this section.

5.3.1 Mass News Disseminator Broadcast Line. None.

5.3.2 Mass News Disseminator Header. The High Seas Forecast MND Header is "HIGH SEAS FORECAST".

5.3.3 Content. To ensure understanding by customers with diverse English language abilities, only use the abbreviations noted in NWSI 10-301. Also, include in the header the appropriate World Meteorological Organization (WMO) Meteorological Area (METAREA), as shown in NWSI 10-302. Follow the format for the HSF as shown in section 5.4; examples of the HSF can be found in Appendix A.

The first part of the HSF describes WARNINGS in effect for systems with sustained winds of 34 knots or greater, and tropical depressions. The expected trends, movement and 24 hour, 48 hour forecast positions and conditions are described. The forecast has less detailed information than the Offshore Waters Forecast. The second part of the HSF consists of the SYNOPSIS AND FORECAST section, which describes weather systems not meeting the warning criteria. The message describes the initial, 24 hour, and 48 hour forecast positions, along with associated conditions, if appropriate.

a. Securite/Pan Pan. The term SECURITE is an international communications code that indicates safety information follows. Substitute the term PAN PAN for SECURITE whenever tropical cyclone warnings (64 knots or greater), or hurricane force wind warnings generated by non-tropical cyclones, are included. Include one of these terms in all HSFs.

b. Warnings. Include in this part of the HSF individual paragraphs listed by category of warning (hurricane, tropical storm, tropical depression, hurricane force wind, storm, or gale). In each paragraph, include a synopsis taken from, as applicable, the latest synoptic surface analysis or the latest tropical cyclone forecast/advisory from the TPC/National Hurricane Center or CPHC showing the following:

1. For tropical cyclones only, provide the appropriate warning headline (i.e., ...HURRICANE WARNING...), the cyclone's strength (tropical depression, tropical storm, or hurricane), and its identifier (name). The headline will be the highest tropical cyclone category for the 48 hour forecast.

2. For all storms,
   a. the location of the storm center (in whole degrees of latitude and longitude);
   b. the central pressure of the storm (in millibars);
   c. for each quadrant of the storm, the areal coverage (in nautical miles from the storm center) of the various wind categories (storm, gale, etc.) and associated seas greater than 8 ft;

d. the direction (eight points of the compass), speed of movement (knots), and trend in movement and/or intensity of the storm.

3. Same as 2b, but expected at 24 hours; include the tropical cyclone name.

4. Same as 2b, but expected at 48 hours; include the tropical cyclone name.

5. For non-tropical systems, initial and forecast locations of fronts and troughs associated with such warnings.

6. For tropical cyclones, the statement "REQUEST 3 HOURLY SHIP REPORTS WITHIN 300 NM OF CENTER" added at the end of the warning section.

Also, forecasters should include a warning if a volcanic eruption is expected to have a significant impact on marine operations in a high seas area. If issued, include in the warning paragraph the name of the volcano, its location, the area affected, and how operations are impacted.

Describe expected changes with reference to time in UTC and day (e.g., AT 0000 UTC APR 12...N OF 27N E OF 85W WIND W TO 20 KT SEAS LESS THAN 8 FT.) rather than specifying a forecast period (e.g., TONIGHT, FRI MORNING, etc.). If no warnings are expected, include 'NONE' in this section.

These paragraphs are hierarchical in order listing the most intense system first followed by other systems in descending order of intensity:

a. Hurricane(s),
b. Hurricane Force,
c. Tropical Storm(s),
d. Storm(s),
e. Developing Storm(s)
f. Gale(s)
g. Developing Gale(s)
h. Tropical Depression(s).
i. Volcano

If two or more storms have equal intensity categories, list the areas in descending order of importance or threat.

Do not include severe local storm watches and warnings, and do not include small craft advisories in HSFs.

5.3.4 Synopsis and Forecast. In this part of the HSF, provide a brief description of the most significant synoptic-scale features found in the forecast area for which warnings are not needed. The format is similar to that used in the warning areas. Use the time of the last previous surface

analysis as the Synopsis Valid Time. Use 48 hours from that Synopsis Valid Time as the Forecast Valid Time.

5.3.5 HSF Forecast Parameters.

a. Winds. Winds represent predominant conditions at about 10 meters above the surface of the water. Describe forecast wind speeds with either one representative value or, when significant differences are expected, with a small (i.e., 10 KT) range of values for the affected area. Forecasters may give these in terms of distances from the low pressure center, distances from the front or trough, or by latitude/longitude. Differences in the radial extent of forecast winds around a low pressure center are usually distinguished by quadrant or semicircle. Forecasters need not include wind direction.

Forecasters should usually limit the description of winds to areas in which they are 20 KT or higher. They may use a statement such as WINDS LESS THAN 20 KT for conditions elsewhere in the forecast area. These thresholds may be adjusted to account for climatology.

b. Seas. Describe forecast sea heights with either one representative value or, when significant differences are expected, with a relatively small (i.e., 5 FT) range of values for the affected area. Forecasters may give these in terms of distances from the low pressure center, distances from the front or trough, or by latitude/longitude. Differences in the radial extent of forecast seas around a low pressure center are usually distinguished by quadrant or semicircle.

Forecasters should usually limit the description of seas to areas in which they are 8 ft or higher. They may use a statement such as SEAS LESS THAN 8 FT for conditions elsewhere in the forecast area. These thresholds may be adjusted to account for climatology.

c. Significant Weather/Visibility. Include significant weather such as obstructions to visibility, squalls, and ship icing.

For those HSFs covering areas south of 30N, forecasters may include thunderstorm information associated with the Intertropical Convergence Zone (ITCZ).

Forecasters should emphasize visibilities expected to be less than 1 NM in the HSF. They should mention obstructions to vision below 5 NM if the condition is widespread enough to affect a significant portion of the forecast area. They may include specific distances. However, do not use a qualitative description of visibility (e.g., VISIBILITY FAIR), and do not include cloud conditions in the HSF.

d. Icing. When appropriate, include a headline for HEAVY FREEZING SPRAY in the HSF.

5.4 Format. This product is available in industry standard encoding and languages, and may

include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language. The following format will be used for the HSF.

(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)

[CCODES] {Refer to NWSI 10-304 for details on CCODES}
HIGH SEAS FORECAST **[FOR METAREA (XXX) {XXX = IV, XII, or XVI}]**
[**bold** terms used exclusively in the AT1, EPI, and EP3 Meteorological Areas]
NATIONAL WEATHER SERVICE (CITY)(STATE)
[National Centers should refer to NWSI 10-1701 for further guidance on headers.]
(SCHEDULED ISSUANCE TIME)UTC (DATE)
SUPERCEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE (OR PAN PAN)

FORECAST AREA DESIGNATOR
SYNOPSIS VALID (VALID TIME)UTC (DATE)
FORECAST VALID (END VALID TIME)UTC (DATE)

WARNINGS

TEXT...(INCLUDE EXTENDED OUTLOOK DURING HURRICANE SEASON)

SYNOPSIS AND FORECAST

Figure 4. High Seas Forecast Format

5.4.1 HSF - Unscheduled Forecasts. HSFs should be updated when a significant change in weather conditions, adversely impacting high seas mariners, is expected and not already forecast.

5.5 Graphic Products. Appendix A lists graphic high seas products. Ensure these products are consistent with information contained in compatible text products. Also, forecasters should ensure consistency between these graphics and products of neighboring offices. These product are available in industry standard encoding and languages, and may include, but not limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

5.6 Updates, Amendments and Corrections. HSFs will be updated or corrected when the forecaster believes the current forecast is not representative, or when format or content errors are

detected. If necessary, append either "...UPDATED" or "...CORRECTED" to the product header when disseminating a correction or amendment, respectively.

APPENDIX A - Examples of NWS Offshore, NAVTEX, and High Seas Forecasts

Table of Contents: Page

1. Graphics Products. The following are official NWS graphic products:

ISSUING OFFICE	AREA	TYPE OF PRODUCT	VT-UTC
Ocean Prediction Center (OPC)	ATL	Preliminary Surface Analysis Surface Analysis Sea State Surface Analysis Wind/Wave Analysis 500 mb Analysis	00
		24 Hour Wind/Wave Forecast 24 Hour Surface Forecast 24 Hour 500 mb Forecast	
		36 Hour 500 mb Forecast	
		48 Hour Wind/Wave Forecast 48 Hr. Wv. Per., with Ice accretion (seasonal) 48 Hour Surface Forecast 48 Hour 500 mb Forecast	
		Wind/Wave Analysis	03
		Preliminary Surface Analysis Surface Analysis Wind/Wave Analysis	06

OPC (cont)	ATL (cont.)		12
		Preliminary Surface Analysis Surface Analysis Sea State Analysis Wind/Wave Analysis 500 mb Analysis	
		24 Hour Wind/Wave Forecast 24 Hour Surface Forecast 24 Hour 500 mb Forecast	
		36 Hour 500 mb Forecast	
		48 Hour Wind/Wave Forecast 48 Hour Wave Period 48 Hour Surface Forecast 48 Hour 500 mb Forecast	
		96 Hour Surface Forecast 96 Hour 500 mb Forecast 96 Hour Wind/Wave Forecast 96 Hr. Wv. Per., with Ice accretion (seasonal)	15
		Wind/Wave Analysis	18
		Preliminary Surface Analysis Surface Analysis Wind/Wave Analysis	21
		Wind/Wave Analysis	00
	PAC	Surface Analysis Wind/wave Analysis 500 mb Analysis Sea State Analysis	
		24 Hour Wind/Wave Forecast 24 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast 48 Hour Wave Period Forecast 48 Hour Surface Forecast 48 Hour 500 mb Forecast	

OPC (cont.)	PAC (cont.)	SST Chart (40N-53N, East of 136W)	00 (cont)
		SST Chart (23N-42N, East of 136W)	
			03
		Wind/Wave Analysis	
			06
		Surface Analysis	
		Wind/Wave Analysis	
			12
		Surface Analysis	
		Wind/Wave Analysis	
		500 mb Analysis	
		24 Hour Wind/Wave Forecast	
		24 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wave Period	
		48 Hour Surface Forecast	
		48 Hour 500 mb Forecast	
		96 Hour Surface Forecast	
		96 Hour 500 mb Forecast	
		96 Hour Wind/Wave Forecast	
		96 Hour Wave Period Forecast	
			15
		Wind/Wave Analysis	
			18
		Surface Analysis	
		Wind/Wave Analysis	
			00
		Tropical Surface Analysis	
		00 Hr Sea State Analysis	
Tropical Prediction Center (TPC)	ATL	24 Hour Surface Forecast	
		24 Hour Wind/Wave Forecast	
		48/72 Hour Surface Forecast	
		48/72 Hour Wind/Wave Forecast	
		48/72 Hour Wave Period/Swell Direction	
		High Wind and Associated Seas	
			04
		Tropical Cyclone Danger Area	
			06
		Tropical Surface Analysis	
		24 Hour Wind/Wave Forecast	
		High Wind and Associated Seas	

			10
		Tropical Cyclone Danger Area	
			12
		Tropical Surface Analysis	
		00 Hr Sea State Analysis	
		24 Hour Surface Forecast	
TPC (cont.)	ATL (cont.)	24 Hour Wind/Wave Forecast	
		48 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Wave Period/Swell Direction	
		72 Hour Surface Forecast	
		72 Hour Wind/Wave Forecast	
		High Wind and Associated Seas	
			16
		Tropical Cyclone Danger Area	
			18
		Tropical Surface Analysis	
		24 Hour Wind/Wave Forecast	
		High Wind and Associated Seas	
			22
		Tropical Cyclone Danger Area	
			00
		Tropical Surface Analysis	
		Trop. 00/24 Hr. Wind/Wave Forecast	
	PAC	Trop. 48 Hr. Wind/Wave Forecast	
		Trop. 48/72 Hr. Wave Per./Swell Dir.	
		High Wind and Associated Seas	
			04
		Tropical Cyclone Danger Area	
			06
		Tropical Surface Analysis	
		Trop. 00/24 Hr. Wind/Wave Forecast	
		High Wind and Associated Seas	
			10
		Tropical Cyclone Danger Area	
			12
		Tropical Surface Analysis	
		Trop. 00/24 Hour Wind/Wave Forecast	
		Trop. 48 Hour Wave Period/Swell Direction	
		Trop. 48/72 Hour Wind/Wave Forecast	
		High Wind and Associated Seas	
			16
		Tropical Cyclone Danger Area	
			18

TPC (cont)	PAC (cont)	Tropical Surface Analysis	
		Trop. 00/24 Hour Wind/Wave Forecast	
		High Wind and Associated Seas	
			00
		Sea Surface Temp. Analysis	
		120 Hour Sea Ice Forecast	
Weather Forecast	PAC		06
Office (WFO)		Surface Analysis	12
ANCHORAGE (ANC)		Surface Analysis	
		Sea Ice Analysis	18
		Surface Analysis	
			00
		Tropical Surface Analysis	
		Sea Surface Temperature Analysis	
WFO HONOLULU	PAC	Pacific Streamline Analysis	
(HFO)		North Pacific Surface Pressure Analysis	
		24/48 Hour Wind/Wave Forecast	
		24/48 Hour Wind/Stream Forecast	
		Significant Cloud Features	
			06
		Tropical Surface Analysis	
		Pacific Streamline Analysis	
		North Pacific Surface Pressure Analysis	
		48 Hour Surface Forecast	
			12
		Tropical Surface Analysis	
		Pacific Streamline Analysis	
		North Pacific Surface Pressure Analysis	
		48 Hour Surface Forecast	
			18
		Tropical Surface Analysis	
		Pacific Streamline Analysis	
		North Pacific Surface Pressure Analysis	
		48 Hour Surface Forecast	

2. Offshore Waters Forecasts:

FZPN01 PANC 111045
OFFANC
OFFSHORE FORECAST
NATIONAL WEATHER SERVICE ANCHORAGE AK
3 AM ADT FRI APR 11 2003
FORECAST VALID TO 5 AM SAT AND OUTLOOK TO 5 AM SUN.

WIND FORECASTS REFLECT THE PREDOMINANT SPEED AND DIRECTION EXPECTED. SEA FORECASTS REPRESENT AN AVERAGE OF THE HIGHEST ONE-THIRD OF THE COMBINED WIND WAVE AND SWELL HEIGHT.

PKZ305-120000-
GULF OF ALASKA OFFSHORE SYNOPSIS.
A 998 MB LOW NEAR 55N 150W WILL DISSIPATE FRI AFTERNOON. A SECOND 998 MB LOW NEAR 50N 138W WILL WEAKEN TO 998 MB AS IT MOVES TO NEAR 48N 136W FRI NIGHT AND THEN WEAKENS TO 1008 MB SAT AND DISSIPATES SAT NIGHT. A FRONTAL SYSTEM FROM A 987 MB LOW NEAR 61N 177W FRI NIGHT WILL EXTEND THROUGH ST. PAUL ISLAND TO NEAR ATKA AND MOVE TO NEAR THE KENAI PENINSULA SAT NIGHT. A 1010 MB LOW WILL DEVELOP ALONG THE FRONTAL SYSTEM NEAR 58N 150W SAT NIGHT.
$$
PKZ385-120000-
GULF OF ALASKA OFFSHORE...NORTH OF 55 DEGREES NORTH...OUTSIDE COASTAL WATERS.

FORECAST. EAST OF 144W.
NORTHEAST TO NORTH WIND 20 KTS DIMINISHING TO NORTHWEST 10 KTS FRI NIGHT. SEAS 13 FT SUBSIDING TO 7 FT FRI NIGHT. SHOWERS AND FOG. OUTLOOK NORTHWEST WIND 10 TO 20 KTS. SEAS 4 TO 7 FT.

WEST OF 144W.
EAST TO NORTHEAST WIND 10 TO 20 KTS DIMINISHING. SEAS 8 TO 13 FT SUBSIDING. SHOWERS AND FOG. OUTLOOK VARIABLE WIND INCREASING TO SOUTH TO SOUTHEAST WIND 15 TO 25 KTS. SEAS BUILDING TO 5 TO 9 FT.
$$
PKZ395-120000-
OFFSHORE EXTENDED FORECAST FOR THE GULF OF ALASKA
VALID SUN APR 13 THROUGH TUE APR 15.

A FRONTAL SYSTEM WILL MOVE FROM THE WESTERN GULF OF ALASKA TO THE EASTERN GULF SUN NIGHT. ANOTHER FRONTAL SYSTEM WILL MOVE INTO THE WESTERN GULF TUE.

$$

PKZ300-120000-
BERING SEA OFFSHORE SYNOPSIS.
A 994 MB LOW NEAR 55N 175W WILL MOVE ONSHORE NEAR 66N 175W SAT NIGHT AS 978 MB. A 979 MB LOW NEAR 52N 169E WILL MOVE TO 59N 175W SAT NIGHT AS 991 MB.
$$
PKZ380-120000-
BERING SEA OFFSHORE...SOUTH CENTRAL BERING SEA EAST OF THE INTERNATIONAL DATELINE...OUTSIDE COASTAL WATERS FORECAST.

EAST OF 169W.
GALE WARNING.
WIND INCREASING TO SOUTH TO SOUTHEAST 30 TO 40 KTS FRI AFTERNOON. SEAS 13 TO 20 FT. RAIN. OUTLOOK SOUTH WIND 45 KTS. SEAS 24 FT.

169W TO 174W.
SOUTH TO SOUTHEAST WIND 20 TO 30 KTS BECOMING VARIABLE 20 KTS FRI EVENING. SEAS 7 TO 13 FT. RAIN AND SNOW. OUTLOOK WEST WIND 40 KTS. SEAS 20 FT.

WEST OF 174W.
SOUTH TO SOUTHWEST WIND 15 TO 25 KTS. SEAS 9 TO 15 FT. RAIN AND SNOW. OUTLOOK WEST WIND 45 KTS. SEAS 24 FT.
$$
PKZ390-120000-
OFFSHORE EXTENDED FORECAST FOR THE SOUTH CENTRAL BERING SEA
VALID SUN APR 13 THROUGH TUE APR 15.
A LOW JUST SOUTH OF KAMCHATKA WILL MOVE INTO THE CENTRAL BERING SEA MON NIGHT.
$$

FZPN26 KWBC 111015
OFFPZ6

OFFSHORE WATERS FORECAST
NWS OCEAN PREDICTION CENTER WASHINGTON DC
330 AM PDT FRI 11 APR 2003

CALIFORNIA WATERS FROM 60 NM TO 250 NM OFFSHORE

PZZ089-111730-
.SYNOPSIS...A WEAK COLD FRONT APPROACHING THE COAST TODAY WILL

DISSIPATE BY TONIGHT. A HIGH PRES RIDGE EXTENDING W FROM THE S WATERS TODAY WILL DISSIPATE OVER THE WEEKEND. LOW PRES WILL FORM ABOUT 300 NM W OF POINT SAINT GEORGE BY TONIGHT...MOVE E ACROSS THE N CALIFORNIA WATERS LATE TONIGHT INTO SAT...AND THEN HEAD NE OF THE AREA ON SUN. A COLD FRONT WILL APPROACH THE REGION FROM THE NW MON...WITH LOW PRES FORMING ALONG THE FRONT JUST N OF THE AREA BY TUE.
$$

PZZ083-111730-
POINT ST GEORGE TO POINT ARENA
330 AM PDT FRI 11 APR 2003

.TODAY...SW WINDS 10 TO 20 KT. SEAS 9 TO 13 FT. SHOWERS BECOMING AREAS OF RAIN AND PATCHY FOG LATE.
.TONIGHT...SW WINDS 15 TO 25 KT. SEAS 10 TO 14 FT. AREAS OF RAIN AND PATCHY FOG.
.SAT...W PORTION...WINDS BECOMING NW 15 TO 25 KT. E PORTION...S WINDS 10 TO 20 KT...EXCEPT TO 25 KT FAR E PART. SEAS 11 TO 14 FT THROUGHOUT. AREAS OF RAIN AND PATCHY FOG THROUGHOUT.
.SAT NIGHT...W PORTION...NW WINDS INCREASING TO 20 TO 30 KT. E PORTION...WINDS BECOMING SW 15 TO 25 KT. SEAS 11 TO 14 FT THROUGHOUT. RAIN CHANGING TO SCATTERED SHOWERS THROUGHOUT.
.SUN...W PORTION...NW WINDS 15 TO 25 KT...EXCEPT TO 30 KT FAR NW CORNER. E PORTION...SW TO W WINDS 15 TO 25 KT. SEAS 10 TO 13 FT THROUGHOUT.
.MON...WINDS BECOMING W 10 TO 20 KT. SEAS 9 TO 12 FT.
.TUE...W PORTION...W TO NW WINDS 20 TO 25 KT. E PORTION...S TO SW WINDS 15 TO 25 KT. SEAS 9 TO 13 FT THROUGHOUT.
$$

PZZ084-111730-
POINT ARENA TO POINT CONCEPTION
330 AM PDT FRI 11 APR 2003

.TODAY...W TO SW WINDS 10 TO 20 KT...EXCEPT VARIABLE 5 TO 15 KT SE PORTION THIS MORNING. SEAS 7 TO 11 FT...EXCEPT BUILDING TO 13 FT NW PORTION THIS AFTERNOON. SHOWERS MAINLY N PORTION.
.TONIGHT...SW WINDS INCREASING TO 15 TO 25 KT. SEAS 8 TO 14 FT... HIGHEST NW. SHOWERS THROUGHOUT.
.SAT...W TO SW WINDS 20 TO 30 KT. SEAS BUILDING TO 10 TO 16 FT... HIGHEST NW. SHOWERS.
.SAT NIGHT...W WINDS DECREASING TO 15 TO 25 KT. SEAS 12 TO 15 FT. SCATTERED SHOWERS.

.SUN...W WINDS DECREASING TO 10 TO 20 KT...EXCEPT BECOMING NW OVER THE FAR NW PORTION. SEAS SUBSIDING TO 10 TO 13 FT.
.MON...NW TO W WINDS 10 TO 20 KT. SEAS 9 TO 12 FT.
.TUE...W TO SW WINDS 15 TO 25 KT...EXCEPT BECOMING NW OVER THE NW PORTION. SEAS 8 TO 12 FT.
$$

PZZ085-111730-
POINT CONCEPTION TO GUADALUPE ISLAND
330 AM PDT FRI 11 APR 2003

.TODAY...NW WINDS 10 TO 20 KT. SEAS 5 TO 8 FT.
.TONIGHT...NW TO W WINDS 10 TO 20 KT. SEAS 5 TO 9 FT.
.SAT...W OF 120W...WINDS BECOMING SW 10 TO 20 KT...EXCEPT TO 25 KT NW PORTION. SEAS BUILDING TO 8 TO 12 FT LATE. SHOWERS DEVELOPING.
E OF 120W...NW TO W WINDS 10 TO 15 KT. SEAS 5 TO 8 FT.
.SAT NIGHT...WINDS BECOMING W TO SW 10 TO 20 KT THROUGHOUT... EXCEPT NW OVER THE FAR SE PORTION. SEAS 10 TO 13 FT W OF 121W... AND 6 TO 10 FT E OF 121W. SCATTERED SHOWERS.
.SUN...W TO SW WINDS 10 TO 20 KT. SEAS BECOMING 8 TO 13 FT... HIGHEST NW.
.MON...WINDS BECOMING NW 15 TO 20 KT. SEAS 8 TO 12 FT.
.TUE...NW WINDS 10 TO 15 KT...EXCEPT BECOMING SW 15 TO 20 KT NW PORTION. SEAS 8 TO 11 FT.
$$

FORECASTER ALPHA. OCEAN FORECAST BRANCH.

3. Marine Weather Discussion:

AGPN40 KWNM 140728
MIMPAC

MARINE WEATHER DISCUSSION FOR NORTH PACIFIC OCEAN
NWS/OCEAN PREDICTION CENTER WASHINGTON DC
1230 AM PDT SAT 14 APR 2003

FORECAST DISCUSSION: MAJOR FEATURES/WINDS/SEAS/SIGNIFICANT WEATHER FOR NORTH PACIFIC N OF 30N AND E OF 150W.

GLOBAL MODELS IN EXCELLENT AGREEMENT OVR E PAC THRU ABT 48 HRS WITH TIMING OF UPR TROF INTO S CA MON NITE...WITH SHRTWV ENERGY AT BASE OF TROF MVG S OF PT CONCEPTION. HGTS WILL BRIEFLY ON INCREASE TUE AND TUE NIGHT...BEFORE NEXT UPR TROF APPROACHES WED. 00Z GFS

MUCH FASTER WITH THIS UPR TROF WHEN COMPARED TO PREV RUNS. ETA... UKMET...ECMWF ALL SLOWER WITH UPR TROF...AS WELL AS THE ENSEMBLES FROM YDAYS 12Z GFS. 00Z ENSEMBLES NOT AVAILABLE YET. AM PREFERRING A SLOWER SOLN...GIVEN MAJOR CHANGE IN GFS...AND ALSO GFS TREND OVR PAST COUPLE NIGHTS WITH THE UPR TROF MON NITE. THAT IS...GFS WAS FASTEST...AND TRNDED SLOWER RUN TO RUN. AS MENTIONED IN PREV MIM...GFS THEN DROPS POTENT PIECE OF SHRTWV ENERGY ORIGINATING IN BERING SEA INTO PZ5 WTRS THU AND PZ6 WTRS FRI. ECMWF GENERALLY AGREES WITH THIS SOLN...ALSO THE GLOBAL CANADIAN WHICH IS MUST FASTER THO. UKMET CLOSER TO CANADIAN. AGAIN AM THINKING SLOWER SOLN IS BETTER.

SFC...WILL LEAVE SOME MENTION OF 30 KT WINDS FOR CNTRL CA WTRS FRI...BUT AM NOT QUITE CONVINCED THAT UPR PATTERN WILL BE AS POTENT AS IS BEING ADVERTISED. 18Z GFS EVEN HAD SOME MIN GALES AT 40M OVR CNTRL CA WTRS FRI. WILL WATCH TRENDS NEXT FEW RUNS.

SEAS...HAVE GENERALLY COME DOWN ALNG COAST...9 FT OR LESS FROM PT ARENA NWRD AND A COUPLE 10 FT RPTS OFF CNTRL CA. WW3 REMAINS A BIT LOW W OF CNTRL AND S CA OFFSHR WTRS...WHERE HAD 17 AND 18 FT OBS...AND WW3 GUESS 14 FT MAX.

WARNINGS...
PZ5...NONE.
PZ6...NONE.

FORECASTER CHARLIE. OCEAN FORECAST BRANCH.

4. NAVTEX Forecasts:

NAVTEX MARINE FORECAST
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL
530 AM EDT FRI APR 11 2003

...PLEASE REFER TO THE COASTAL WATERS FORECASTS (CWF) AVAILABLE THROUGH NOAA WEATHER RADIO AND OTHER MEANS FOR DETAILED COASTLINE FORECASTS...

SYNOPSIS FOR SW N ATLC INCLUDING THE BAHAMAS

.SYNOPSIS...STRONG GUSTY W WINDS TODAY GRADUALLY DECREASING SAT. COLD FRONT 30N76W TO SE BAHAMAS MOVING SLOWLY E. FRONT MOVES TO NEAR 30N60W 20N70W LATE SAT AND GRADUALLY DISSIPATES

ON SUN. HIGH PRESSURE BUILDS OVER AREA MON AND TUE.

SW N ATLC S OF 31N W OF 65W INCLUDING THE BAHAMAS

.TODAY AND TONIGHT...N OF 28N W OF FRONT WIND W 25 TO 30 KT.
SEAS 10 TO 14 FT. ELSEWHERE W OF FRONT WIND W 20 TO 25 KT.
SEAS 6 TO 9 FT. E OF FRONT TO 65W WIND SE TO S 20 TO 25 KT.
SEAS 6 TO 9 FT. SCATTERED SHOWERS AND TSTMS WITH FRONT.
.SAT...N OF 28N W OF FRONT WIND W 20 KT. SEAS 9 TO 12 FT.
ELSEWHERE W OF FRONT WIND W 15 KT. SEAS 5 TO 8 FT. E OF FRONT
WIND S 20 KT. SEAS 6 TO 8 FT. SCATTERED SHOWERS WITH FRONT.
.SAT NIGHT...W OF FRONT WIND W TO NW 10 TO 15 KT. SEAS 4 TO 6
FT EXCEPT 6 TO 9 FT E OF 75W. E OF FRONT WIND SE TO S 10 TO 15
KT. SEAS 4 TO 6 FT. WIDELY SCATTERED SHOWERS WITH FRONT.
.SUN...N OF 28N LIGHT TO MODERATE W WIND. SEAS 5 TO 8 FT. S OF
28N LIGHT N TO NE WIND. SEAS 3 TO 5 FT.
.MON AND TUE...MODERATE NE TO E WIND. SEAS 4 TO 6 FT.

SYNOPSIS FOR THE GULF OF MEXICO

.SYNOPSIS...WEAK HIGH PRESSURE OVER THE W GULF WILL MOVE SLOWLY
E THROUGH SUN. HIGH MOVES E OF AREA MON THROUGH TUE AND
STRENGTHENS SLIGHTLY.

MIDDLE GULF BETWEEN 85W AND 90W

.TODAY...WIND NW 15 TO 20 KT. SEAS 5 TO 7 FT.
.TONIGHT THROUGH SAT NIGHT...N OF 28N WIND NW 10 TO 15 KT. SEAS
2 TO 4 FT. S OF 28N WIND N TO NE 10 TO 15 KT. SEAS 3 TO 4 FT.
.SUN...LIGHT NE WIND. SEAS 2 TO 3 FT.
.MON THROUGH TUE...LIGHT TO MODERATE E TO SE WIND. SEAS 3 TO 5
FT.

E GULF BETWEEN 81W AND 85W

.TODAY...N OF 26N WIND NW 20 TO 25 KT DECREASING LATE. SEAS 7
TO 9 FT DECREASING. S OF 26N WIND NW 15 TO 20 KT. SEAS 5 TO 7
FT. .TONIGHT...N OF 27N WIND NW 15 TO 20 KT. SEAS 4 TO 7 FT. S
OF 27N WIND NW 10 TO 15 KT. SEAS 4 TO 6 FT.
.SAT AND SAT NIGHT...N OF 27N WIND NW 10 KT. SEAS 2 TO 3 FT. S
OF 27N WIND N TO NE 10 KT. SEAS 3 TO 4 FT.
.SUN...LIGHT NE WIND. SEAS 2 TO 3 FT.
.MON THROUGH TUE...LIGHT TO MODERATE E WIND. SEAS 3 TO 5 FT.

SYNOPSIS FOR CARIBBEAN AND TROPICAL N ATLC FROM 7N TO 22N
BETWEEN 55W AND 65W

.SYNOPSIS...COLD FRONT 20N76W TO 13N86W MOVING SLOWLY E. ATLC
RIDGE ALONG 27N. FRONT GRADUALLY DISSIPATES BY SUN. HIGH
PRESSURE BUILDS TO N THROUGH TUE.

NW CARIBBEAN N OF 15N W OF 75W

.TODAY AND TONIGHT...WIND NW TO N 15 KT. SEAS 4 TO 6 FT.
.SAT AND SAT NIGHT...WIND NE 10 TO 15 KT. SEAS 3 TO 4 FT.
.SUN...LIGHT NE WIND. SEAS 3 TO 4 FT.
.MON THROUGH TUE...MODERATE NE WIND. SEAS 4 TO 6 FT.

WINDS LEGEND.
LIGHT...15 KT OR LESS.
MODERATE...16-21 KT.
STRONG...22-27 KT.
NEAR GALE...28-33 KT.
GALE...34-47 KT.
STORM...48-63 KT.
HURRICANE...64 KT OR GREATER.

$$

5. High Seas Forecasts:

HSFEPI

CCODE/1:31:12:01:00/AOW+POR/NWS/CCODE
HIGH SEAS FORECAST FOR METAREA XII
NATIONAL WEATHER SERVICE WASHINGTON DC/TPC MIAMI FL
OCEAN PREDICTION CENTER/OFB 1745 UTC MAY 02 2003
SUPERSEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE
PACIFIC N OF 30N AND S OF 67N E OF A LINE FROM BERING STRAIT
TO 50N 160E.

SYNOPSIS VALID 1200 UTC MAY 02.
24 HOUR FORECAST VALID 1200 UTC MAY 03.
48 HOUR FORECAST VALID 1200 UTC MAY 04.

.WARNINGS.

...STORM WARNING...
.LOW 41N 175E 1004 MB MOVING SE 20 KT. WINDS 40 TO 55 KT SEAS 17
TO 26 FT WITHIN 180 NM W AND 300 NM SW QUADRANTS. ELSEWHERE WINDS
25 TO 40 KT SEAS 10 TO 18 FT WITHIN 300 NM W AND 420 NM S AND SW
QUADRANTS.
.24 HOUR FORECAST LOW 36N 175W 1007 MB. FORECAST WINDS 25 TO 40 KT
SEAS 12 TO 20 FT WITHIN 420 NM SW SEMICIRCLE.
.48 HOUR FORECAST LOW 35N 171W 1010 MB. FORECAST WINDS 25 TO 35 KT
SEAS 10 TO 18 FT WITHIN 300 NM W AND NW QUADRANTS.

...GALE WARNING...
.LOW 34N 131W 1000 MB MOVING E NE 15 KT. WINDS 25 TO 35 KT SEAS 10
TO 16 FT WITHIN 360 NM W AND NW QUADRANTS. ELSEWHERE WINDS 20 TO
30 KT SEAS 8 TO 13 FT WITHIN 540 NM OF CENTER OVER FORECAST
WATERS.
.24 HOUR FORECAST LOW 37N 124W 1003 MB. FORECAST WINDS TO 25 KT
SEAS 9 TO 14 FT WITHIN 480 NM S SEMICIRCLE OVER FORECAST WATERS.
.48 HOUR FORECAST LOW DISSIPATED INLAND.

...GALE WARNING...
.LOW 35N 161W 1009 MB MOVING N 10 KT. WINDS 25 TO 35 KT SEAS 9 TO
15 FT WITHIN 300 NM E SEMICIRCLE.
.24 HOUR FORECAST LOW 39N 160W 1009 MB. FORECAST WINDS 20 TO 30 KT
SEAS 10 TO 15 FT WITHIN 300 NM E AND NE QUADRANTS.
.48 HOUR FORECAST LOW 40N 153W 1016 MB. FORECAST CONDITIONS
DIMINISHED.

...GALE WARNING...
.AREA OF WINDS TO 25 KT SEAS TO 12 FT N OF 56N AND W OF 167E.
.24 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS TO 13 FT FROM 49N
TO 54N W OF 175E.
.48 HOUR FORECAST LOW 57N 172W 993 MB. FORECAST WINDS 25 TO 35 KT
SEAS 9 TO 14 FT WITHIN 360 NM S AND SW QUADRANTS.

.SYNOPSIS AND FORECAST.

.LOW 46N 176W 1000 MB MOVING N 15 KT. FRONT EXTENDS FROM 52N 174W
TO 40N 165W. WINDS 20 TO 30 KT SEAS 9 TO 16 FT WITHIN 300 NM E AND
NE OF FRONT...ALSO WITHIN 300 NM E SEMICIRCLE.
.24 HOUR FORECAST LOW 52N 175W 1005 MB. FORECAST WINDS 20 TO 30 KT
SEAS TO 12 FT N OF 59N W OF 170W.
.48 HOUR FORECAST LOW ABSORBED BY FORECAST LOW 57N 172W.

.24 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS TO 12 FT FROM 46N

TO 52N BETWEEN 137W AND 146W.
.48 HOUR FORECAST AREA OF WINDS TO 25 KT SEAS TO 12 FT FROM 38N TO 46N BETWEEN 125W ANBD 133W.

.48 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS TO 12 FT N OF 45N W OF 170E.

.48 HOUR FORECAST LOW 40N 158E 1005 MB. FORECAST WINDS 20 TO 30 KT SEAS TO 12 FT WITHIN 360 NM E SEMICIRCLE.

.HIGH 48N 150W 1034 MB MOVING S 10 KT.
.24 HOUR FORECAST HIGH 44N 150W 1025 MB.
.48 HOUR FORECAST HIGH DISSIPATED.

.HIGH 37N 159E 1028 MB MOVING E 10 KT.
.24 HOUR FORECAST HIGH 37N 166E 1028 MB.
.48 HOUR FORECAST HIGH 38N 176E 1027 MB.

.48 HOUR FORECAST HIGH 32N 140W 1025 MB.

.48 HOUR FORECAST HIGH 45N 180 1026 MB.

.FORECASTER SHAW. OCEAN FORECAST BRANCH.

E PACIFIC FROM THE EQUATOR TO 30N E OF 140W.

SYNOPSIS VALID 1200 UTC FRI MAY 02
24 HOUR FORECAST VALID 1200 UTC SAT MAY 03
48 HOUR FORECAST VALID 1200 UTC SUN MAY 04

WARNINGS
NONE.

SYNOPSIS AND FORECAST
SYNOPSIS...FRONT 30N125W TO 22N140W. NW OF FRONT N OF 27N WIND W TO NW 20 TO 25 KT SEAS 9 TO 13 FT...N OF 27N WITHIN 180 NM E OF FRONT WIND SW 20 KT SEAS 8 FT.
24 HOUR FORECAST...WEAKENING FRONT 30N122W 25N132W. N OF 28N W OF FRONT TO 128W WIND W TO NW 20 KT SEAS 8 TO 11 FT IN NW SWELL. ELSEWHERE N OF FRONT AND N OF 25N W OF 132W WIND LESS THAN 20 KT SEAS TO 9 FT IN N SWELL.
AT 0600 UTC MAY 04...FRONT DISSIPATED. NW OF LINE 30N120W 19N140W WIND LESS THAN 20 KT SEAS TO 9 FT IN N SWELL.
48 HOUR FORECAST...N OF 25N W OF 130W WIND LESS THAN 20 KT SEAS

TO 8 FT IN DECAYING N SWELL.

FROM 24N TO 27N E OF 115W TO COAST OF BAJA CALIFORNIA WIND NW 20 KT SEAS TO 8 FT.
24 HOUR FORECAST...WIND LESS THAN 20 KT SEAS LESS THAN 8 FT.
48 HOUR FORECAST...FROM 22N TO 26N E OF 115W INCLUDING GULF OF CALIFORNIA WIND NW 20 KT SEAS TO 8 FT.

FROM 10N TO 16N W OF 130W WIND NE TO 20 KT SEAS TO 8 FT.
24 HOUR FORECAST...LITTLE CHANGE.
48 HOUR FORECAST...FROM 9N TO 17N W OF 125W WIND NE 20 KT SEAS TO 9 FT. FROM 17N TO 25N W OF 130W WIND NE TO 20 KT SEAS TO 9 FT IN DECAYING N SWELL.

REMAINDER FORECAST AREA WIND LESS THAN 20 KT SEAS LESS THAN 8 FT.

CONVECTION VALID 1500 UTC FRI MAY 02...
INTERTROPICAL CONVERGENCE ZONE...5N77W 6N83W 6N93W 9N104W 6N127W 7N140W. SCATTERED MODERATE TO STRONG CONVECTION WITHIN 75 NM N OF THE AXIS FROM 82W TO 86W...AND WITHIN 90 NM N OF THE AXIS FROM 105W TO 108W. SCATTERED MODERATE ISOLATED STRONG WITHIN 60 NM OF THE AXIS NEAR 97W...WITHIN 60 NM OF AXIS NEAR 112W... AND WITHIN 60 NM OF AXIS FROM 121W TO 125W. SCATTERED MODERATE WITHIN 75 NM S OF THE AXIS E OF 78W.

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FORECASTER HOLWEG
TROPICAL PREDICTION CENTER
TROPICAL ANALYSIS AND FORECAST BRANCH

NATIONAL WEATHER SERVICE HONOLULU HI
NORTH PACIFIC EQUATOR TO 30N BETWEEN 140W AND 160E.
SYNOPSIS VALID 1200 UTC MAY 02 2003.
24 HR FORECAST VALID 1200 UTC MAY 03 2003.
48 HR FORECAST VALID 1200 UTC MAY 04 2003.

WARNINGS. NONE.

SIGNIFICANT FEATURES AND FORECAST

COLD FRONT THROUGH 30N 158W 20N 165W CONTINUING AS A SHEAR LINE THROUGH 18N 170W 13N 170W. FRONT MOVING EAST SLOWLY WITH SHEAR LINE NEARLY STATIONARY. WINDS 20 TO 25 KT SEAS AND 8 TO 12 FT BETWEEN 14N AND 21N W OF 177E. ISOLATED TSTMS WITHIN 60 NM OF SHEAR LINE BETWEEN

170E AND 180.
24 HR FORECAST...FRONT THROUGH 30N 154W 21N 170W CONTINUING AS A SHEAR LINE 12N 173W. WINDS 20 TO 25 BETWEEN 14N AND 20N W OF 175E.
48 HR FORECAST...STATIONARY FRONT THROUGH 30N 153W 26N 163W. WINDS WEAKENED 20 KT OR LESS.

HIGH 1023 MB NEAR 27N 165E STATIONARY AND DISSIPATING AFTER 12 HRS. RIDGE FROM HIGH THROUGH 28N 160E AND THROUGH 27N 180 23N 167W. RIDGES MOVING N 10 KT.

RIDGE THROUGH 30N 149W 23N 145W 21N 140W MOVING EAST SLOWLY.

RIDGE THROUGH 30N 151W 19N 160W MOVING EAST SLOWLY.

SEAS 8 FT OR LESS NW OF A LINE THRU 20N 160E TO 30N 170E...OTHERWISE SEAS 9 TO 11 FT IN AREA NW OF A LINE THRU 10N 160E 30N 160E. SEAS 9 TO 11 FT S OF 10N E OF 170E MAINLY DUE TO SOUTH SWELL. SEAS 8 FT OR LESS OVER REMAINDER OF AREA.
24 HR FORECAST...NW OF A LINE THRU 20N 160E 30N 170E...AND S OF A 10NW OF 175W SEAS 8 FT OR LESS. REMAINDER OF AREA SEAS SEAS 9 TO 11 FT.
48 HR FORECAST...SEAS 9 TO 11 FT IN AREA SOUTH OF A LINE THROUGH 20N 10N 178W 30N 160W.

ISOLATED MODERATE TSTMS WITHIN 30 NM OF A LINE 11N 172W 10N 180.

ITCZ...ISOLATED MODERATE TSTMS WITHIN 60 NM OF A LINE THROUGH 04N 180W 04N 160W.